MD Fire Cy

LOCKHEED-AIRCRAFT CORPORATION	ENGINEERING STUDY ☐ CHANGE PROPOSAL ☒	LAC-164
DATE 26 JUNE 1964	AFFECTS: WSPO ☒ PROJECT ☒	
NAME OF MAJOR COMPONENT	PART OR LOWEST SUBASSEMBLY	PART NO. & MODEL OR TYPE

TITLE OF PROPOSAL: COCKPIT UPDATE

NATURE OF PROPOSAL:

SEE PAGE 2

REASON FOR PROPOSAL:

SEE PAGE 3 - 4

ES — ESTIMATED COST AND TIME INVOLVED:
ADDITIONAL FUNDING REQUIRED:

CP — ESTIMATED COST FOR KITS OR PARTS: SEE PAGE 5 - 6
ADDITIONAL FUNDING REQUIRED: Cust. #1 None Cust. #2 FY'65 Contingent upon availability of funds

ITEMS AFFECTED BY PROPOSAL:

SAFETY	MISSION EFFEC-TIVENESS	PERFORM-ANCE	OPERATING PROCEDURE	INTER-CHANGE-ABILITY	WEIGHT OR WEIGHT & BALANCE	TOOLS & SUPPORT EQUIPMENT	MAINTE-NANCE PROCEDURE	SERVICE LIFE	FLIGHT MANUAL	MAINTE-NANCE MANUAL
☐	☐	☐	☒	☒	☒	☐	☒	☐	☒	☒

EST. MAN/HRS. REQ'D. TO ACCOMPLISH CHANGE IN FIELD

SOURCE OF PARTS FOR KIT: LAC PURCHASE & FAB & GFAE

AVAILABILITY ___ - ___ WEEKS AFTER APPROVAL: SEE PAGE 6

DISPOSITION OF SPARES AFFECTED: SEE PAGE 2

INITIATED BY: CUSTOMER & CONTRACTOR

STAT

SP-E-1A

PURPOSE:

1. To improve the arrangement of, and pilot accessibility and visability to, instruments and control panels in the cockpit.

2. To improve the accessibility and removability of equipment, panels, and electrical disconnects in the cockpit.

3. To provide adequate cockpit space for improved autopilot, compass, and navigation system.

NATURE OF PROPOSAL:

Redesign cockpit to rearrange instrument locations on all instrument panels and relocate equipment and controls in side consolés in accordance with previously approved mock up.

Existing instruments and control panels will be utilized except as outlined below:

EQUIPMENT TO BE REMOVED	TYPE	EQUIPMENT TO BE ADDED	CUSTOMER AFFECTED
MS25025-1	DC Loadmeter	Model MMI(Modified) (Minneapolis Honeywell)	Both
MS28010-1	Fuel Press. Indicator	290A60	WSPO
217A-60A (Edison)	Fuel Press. Indicator	290A60	Project
MS28010-2	Oil Press. Indicator	290A100	WSPO
217A-100A (Edison)	Oil Press. Indicator	290A100	Project
MS28005-1	Fuel Press. Transmitter	318-60 (Edison)	WSPO
MS28005-2	Oil Press. Transmitter	318-100 (Edison)	WSPO
AN5820-3	Turn & Slip Indicator	MS28041-1	Both
AN5825-7	Rate of Climb Indicator	MS28075-1	Both
Q409-2	Cabin Press. Indicator	(31219-9R1-B-1)	Both
1461EU-8-03	Tachometer	MS28000-1	Both
MS28010-5	Hyd Press. Indicator	AGU-3A(GFAE)	Project
MS28010-5	Hyd Press. Indicator	1046-3-A(Beiderman)	WSPO
	Master 1,850 Long Caution Light	R-6141	Both
	Annunciator Light Panel	R-6140	Both
AN60011-[illegible]	[illegible]	[illegible]	Both
	EGT Indicator	BH185R-11C	WSPO

NATURE OF PROPOSAL: (Cont'd)

Installation of the new fuel and oil pressure systems on WSPO aircraft will require elimination of fuselage mounted transmitters and installation of engine mounted transmitters.

The left and right-hand consoles, trim panels, and center, left-hand and right-hand instruments panels will be redesigned to accomodate the new equipment locations.

The System XIIA indicator will occupy the upper right-hand corner of the main instrument panel on all ships except aerial refueling, AFSC, and hardnose aircraft. On aerial refueling aircraft, the ARS indicator panel will be installed in this area, and the System XIIA indicator will be mounted on the RH sill. The hardnose and AFSC aircraft do not require System XIIA. On hardnose aircraft, this area will incorporate the F-1 controls.

Auxiliary control panels (kneehole, etc.) will be redesigned as follows:

a. F-1 Control - relocate as above.

b. F-2, P-3, System IX, Rate Meter, [redacted] Pressure, and U.S. Mule panels will be redesigned to occupy the lower left corner of the main instrument panel and/or the lower portion of the RH side panel. Redesign of controls for XH-2, XH-3, XH-4, Sun Shooter, Horizon Scanner and Midas, 4 Channel Radiometer, RATU, and T-8 Tracker, if required, will be subject to separate negotiation. These designs will attempt to eliminate control panels extending inboard on the LH side console. Extension of the main instrument panel into the present kneehole areas will be kept to a minimum, as agreed upon during previous mock-up review. STAT

Space for the "G" model hook, Spoiler and Fuel Dump lights and controls will be provided in space occupied by the ARS valve check switch and on the center portion of the right side panel.

Space for the pending "Hypoxia" panel will be provided on the right console. A warning light will be incorporated in the Master Caution System.

STAT Space for the pending [redacted] panel will be provided on the left console.

The ATC Control Panel will be installed in the left console.

The Map Case in the left console will be reworked to a smaller size to accommodate these panel installations.

Space for the pending DROP TANK Controls and indication will be provided in the lower portion of the right side panel and/or the lower right console step panel.

Space for the pending System 112B Counter will be provided on the center portion of the Main Instrument Panel.

All electrical disconnects to the instrument panel will be consolidated and spare pins provided.

All warning lights will be consolidated into a master caution system except for the fire warning, landing gear warning, and ARS lights. The master caution light will be non-dimmable. All other warning and indicator lights will be dimmable.

NATURE OF PROPOSAL: (cont'd)

All panels will be colored a light gray in lieu of the green now provided. Panel illumination will be provided by an improved type post light. Red lighting will be retained.

Space provisions for Autopilot, Compass and Navigation System Components will be provided as follows:

1. One elevator and one aileron trim indicator on the left side of the main instrument panel.

2. One ID-250 or ID-526 Radio Magnetic Indicator on the left top side of the main instrument panel.

3. As many as 7 Autopilot adjustment pots on the center portion of the main instrument panel.

4. A Navigation System data control box in an area approximately 5 x 5 3/4 inches in the lower right-hand corner of the main instrument panel.

5. An Automatic wind computer control panel in an area approximately 2 5/8 x 5 3/4 inches in the forward portion of the lower step panel of the right console.

6. An Autopilot Controller and Compass Control Panel in an area approximately 6 3/4 x 4 3/4 in the forward portion of the upper step panel of the right console.

7. An autotrim failure warning light and two switches or two Mach control switches in the right portion of the right side instrument panel.

8. An autopilot disconnect switch on the control yoke.

9. An autopilot and a compass ground maintenance electrical power disconnect switch on the right trim panel.

NOTE - The space provisions listed above will accommodate the existing auto pilot/ compass system or any combination of the autopilot, compass and navigation systems now being evaluated.

Equipment located in the vicinity of the FS 252 bulkhead (rate meter, air cond. magamp, emerg. inverter, RVT amplifier) will be relocated or re-arranged as required to provide improved wire routing.

A Mock-Up of the first installation will be made prior to incorporation of the change in the first article. This Mock-Up will be maintained, as practical, for future changes.

It is estimated that the weight and C.G. change will be minor. Actual figure will be determined at the first installation.

Next 1 Page(s) In Document Exempt

Approved For Release 2002/08/21 : CIA-RDP89B00980R000200170094-2